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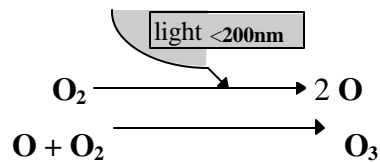
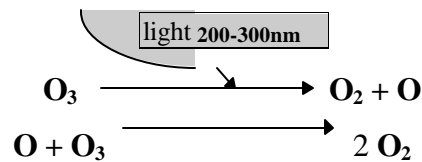
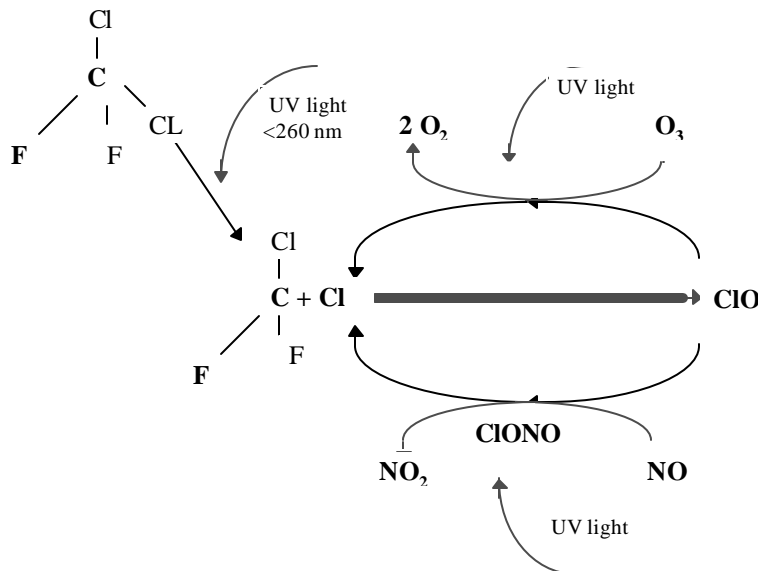
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**UV/8-1****OZONE CHEMISTRY: FORMATION & DEPLETION****Notes:**

Ozone is formed and destroyed naturally in the stratosphere by light waves which have a wavelength between 200-300 nanometers (approximately one billionth of a meter). This process absorbs a high percentage of UV-B and UV-C high energy light waves, keeping our levels of exposure to these rays safe for us and life in the troposphere.

The formation and use of chemicals called halogens has created an unbalanced reaction in the destruction of ozone. Chlorine is believed to have the most damaging effect on the balance of ozone in the stratosphere. As it continually breaks down the natural process of ozone, more and more UV-B and UV-C high energy light waves are reaching the troposphere causing long term damage to us and life in the troposphere.

**1: Solar Formation of Ozone:****2: Solar Destruction of Ozone:****3: Halogen effects on Ozone destruction:**

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### UV/8-1

## **OZONE CHEMISTRY: FORMATION & DEPLETION**

In this way one molecule of chlorine can destroy over 100,000 molecules of ozone before it is finally removed from the stratosphere. Eventually chlorine forms the compound HCl which is water soluble and attaches to precipitation falling to the ground as rain.